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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/678,025

10/04/2000

Toru Koizumi

35.C14850

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02/04/2005

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EXAMINER

KAO, CHIH CHENG G

ART UNIT

PAPER NUMBER

2882

DATE MAILED: 02/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/678,025	KOIZUMI, TORU	
	Examiner	Art Unit	
	Chih-Cheng Glen Kao	2882	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2 and 9-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2 and 9-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 February 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 16 is objected to because of the following informality, which appears to be a minor draft error: (claim 16, lines 1-2, "to any one of claims 1, 2, and 9-15"). Claim 1 was cancelled in a previous amendment. This objection may be obviated by deleting "1," and the comma after "2" in the above recited phrase. For purposes of examination, the claim has been treated as such. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: the signal output line for outputting the amplified signal in line 11 of claim 2 in relationship to the rest of the device.

Claim 2 recites a first signal output line in line 10. Claim 2 also recites a signal output line in line 11. The claim is incomplete because it does not particularly point out and distinctly claim where the second recited output line is coming from in the device, thus amounting to a critical gap in structure. This rejection may be obviated by replacing "a" with - -the- - in the

phrase “wherein a signal output line for outputting the amplified signal” in line 11. For purposes of examination, the claim has been treated as such.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 2, 9, 10, 13, 15, and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Takahashi (US Patent 5955753).

4. Regarding claim 2, Takahashi discloses a solid-state image pickup device (Fig. 1) comprising at least one unit cell having a photoelectric conversion portion (Fig. 1, #1), an amplifying means (Fig. 1, #5), a transfer means (Fig. 1, #3), a reset means (Fig. 1, #4), and a selecting means (Fig. 1, #6) for selecting said amplifying means and outputting an amplified signal to a signal output line (Fig. 1, line from #6 to #7), wherein the signal output line for outputting the amplified signal and a line (Fig. 1, #4 and ϕR_0) having at least one function of three functions including a selection control line for controlling said selecting means, a transfer control line for controlling said transfer means, and a reset control line for controlling said reset means, comprise a single common line in said unit cell.

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5. Regarding claim 9, Takahashi further discloses a noise and optical signal read out (col. 4, line 67) when selecting means are turned on.
6. Regarding claim 10, Takahashi further discloses a plurality of said unit cells arranged in a two-dimensional matrix (Fig. 1).
7. Regarding claim 13, Takahashi further discloses wherein the photoelectric conversion portion, amplifying means, transfer means, reset means, and selecting means are all of the same conductivity type (Fig. 1).
8. Regarding claim 15, Takahashi further discloses each unit cell comprising a plurality of photoelectric conversions portions (Fig. 2) connected to a common amplifying transistor (Fig. 2, #5).
9. Regarding claim 16, Takahashi further discloses wherein said common line extends between two adjoining unit cells (Fig. 1, line from #6 to #7, for example).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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10. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi as applied to claim 2 above, and further in view of Yonemoto (US Patent 5894325).

11. Regarding claim 11, Takahashi discloses a device as recited above.

However, Takahashi does not disclose a power line between two unit cells.

Yonemoto teaches a power line between two unit cells (Fig. 1, #14).

It would have been obvious, to one having ordinary skill in the art at the time the invention was made, to modify the device of Takahashi with the power line of Yonemoto, since one would be motivated to incorporate it to power all cells from just one source for more compactness (Fig. 1) as implied from Yonemoto.

12. Regarding claim 12, Takahashi discloses a device as recited above.

However, Takahashi does not disclose an image pickup system comprising a pickup device, optical system, and signal processing circuit.

Yonemoto teaches an image pickup system (Fig. 9) comprising a pickup device (Fig. 9, #91), an optical system (Fig. 9, #92), and a signal processing circuit (Fig. 9, #97).

It would have been obvious, to one having ordinary skill in the art at the time the invention was made, to modify the device of Takahashi with the image pickup system of Yonemoto, since one would be motivated to incorporate this to better capture signals in a video (col. 8, lines 40-41) as implied from Yonemoto.

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13. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi as applied to claim 2 above, and further in view of Gowda et al. (US Patent 5898168).

Takahashi discloses a device as recited above.

However, Takahashi does not disclose a common line functioning as a selection and transfer control line.

Gowda et al. teaches a common line functioning as a selection and transfer control line (Fig. 3B, #22 and RSL_i, and col. 4, lines 20-28).

It would have been obvious, to one having ordinary skill in the art at the time the invention was made, to modify the device of Takahashi with the common line functioning as a selection and transfer control line of Gowda et al., since one would be motivated to incorporate this to eliminate the separate selection line as implied from Gowda et al. (col. 4, lines 20-28).

Response to Arguments

14. Applicant's arguments filed 1/21/05 have been fully considered but they are not persuasive.

In response to applicant's argument that the references fail to show the key feature of the present invention, it is noted that the features upon which applicant relies (i.e., a single common line as shown, for example, at 58 in Applicant's Figures 1 and 3) are not distinctly and explicitly recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims.

The Examiner still interprets the last paragraph of claim 2 as the signal output line for outputting the amplified signal comprising a single common line in said unit cell and a line

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having at least one function of three functions including a selection control line for controlling the selection means, a transfer control line for controlling the transfer means, and a reset control line for controlling the reset means, comprising a single common line in said unit cell. Takahashi discloses the signal output line outputting the amplified signal (Fig. 1, line from #6 to #7) comprising a single common line in said unit cell and a line (Fig. 1, #4 and ϕR_0) having at least one function of three functions including a selection control line for controlling the selection means, a transfer control line for controlling the transfer means, and a reset control line for controlling the reset means, comprising a single common line in said unit cell. Thus, Takahashi discloses the limitations as recited in claim 2, and at least claim 2 remains rejected.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chih-Cheng Glen Kao whose telephone number is (571) 272-2492. The examiner can normally be reached on M - F (9 am to 5 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Glick can be reached on (571) 272-2490. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



gk



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